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**UNITED STATES DEPARTMENT OF COMMERCE
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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
07/421,633	10/12/89	CHEVALIER	A 65927786X00

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EXAMINER
JOHNSON, S

ART UNIT	PAPER NUMBER
221	5

DATE MAILED: 10/24/90

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 6 month(s), 0 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-14 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-4 are rejected.
5. ☒ Claims 5-14 are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☒ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☒ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

FOREIGN GOVERNMENT
INFORMATION

EXAMINER'S ACTION

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- (u) 1. --This application contains security classification markings or a request that it be held in a security status. In response to this action, applicant is required to either 1) remove the classification markings (or the request for security status), if appropriate, or 2) take the necessary steps to have a secrecy order imposed on the application.--

In order for the response to the office action to be complete, it must 1) for Government owned and prosecuted cases include the imposition of a secrecy order, or 2) for non-Government cases include an indication that ASPAB or an appropriate defense agency has been requested to impose a secrecy order.

(u) 2. INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 C.F.R. § 1.85; 1097 OG 36

IN APPLICATIONS FILED BEFORE JANUARY 1, 1989 OPTION (a) OR (b) MAY BE USED IN ORDER TO CORRECT ANY INFORMALITY IN THE DRAWING.

IN APPLICATIONS FILED AFTER JANUARY 1, 1989 ONLY OPTION (a) MAY BE USED.

AFTER JANUARY 1, 1991 ONLY OPTION (a) MAY BE USED REGARDLESS OF FILING DATE.

(a) File new drawings with the changes incorporated therein. The art unit number, serial number and number of drawing sheets should be written on the reverse side of the drawings. Applicant may delay filing of the new drawings until receipt of the "Notice of Allowability" (PTOL-37). If delayed, the new drawing MUST be filed within the THREE MONTH shortened statutory period set for response in the "Notice of Allowability" (PTOL-37). Extensions of time may be obtained under the provisions of 37 C.F.R. § 1.136(a). The drawing should be filed as a separate paper with a transmittal letter addressed to the Official Draftsman.

(b) Request a commercial bonded drafting firm to make the necessary corrections. A bonded draftsman must be authorized, the corrections executed and the corrected drawings returned to the Office during the THREE MONTH shortened statutory

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period set for response in the "Notice of Allowability" (PTOL-37). Extensions of time may be obtained under the provisions of 37 C.F.R. § 1.136(a).

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the three month shortened statutory period set in the "Notice of Allowability" (PTOL-37). Within that three month period, two weeks should be allowed for review by the Office of the correction. If a correction is determined to be unacceptable by the Office, applicant must arrange to have an acceptable correction re-submitted within the original three month period to avoid the necessity of obtaining an extension of time and of paying the extension fee. Therefore, applicant should file corrected drawings as soon as possible.

Failure to take corrective action within the set (or extended) period will result in ABANDONMENT of the application.

2. Corrections other than Informalities Noted by Draftsman on the PTO-948.

All changes to the drawings, other than informalities noted by the Draftsman, MUST be made in the same manner as above except that, normally, a red ink sketch of the changes to be incorporated into the new drawings MUST be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

- (u) 3. This application is informal in the arrangement of the specification.

The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

Arrangement of Specification

The following order or arrangement is preferred in framing the specification and, except for the title of the invention, each of

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the lettered items should be preceded by the headings indicated below.

- (a) Title of the Invention.
- (b) Cross-References to Related Applications (if any).
- (c) Statement as to rights to inventions made under Federally-sponsored research and development (if any).
- (d) Background of the Invention.
 - 1. Field of the Invention
 - 2. Description of the Prior Art.
- (e) Summary of the Invention.
- (f) Brief Description of the Drawing.
- (g) Description of the Preferred Embodiment(s).
- (h) Claim(s).
- (i) Abstract of the Disclosure.

- (u) 4. The Abstract of the Disclosure is objected to because it is not a single paragraph and because it is labeled inappropriately. Correction is required. See MPEP 608.01(b).
- (u) 5. An unusual length of time has elapsed between the date of execution of the oath or declaration and the filing date of the application. The lapse of 15 weeks is considered to be unreasonable. An explanation of the unreasonable lapse of time or a new oath or declaration properly identifying the application of

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which it is to form a part by Serial Number and filing date is required. See MPEP 602.05.

- (u) 6. Claims 5-14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP 608.01(n).

Accordingly, claims 5-14 have not been further treated on the merits.

- (c) 7. Claims 1-4 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 10, the phrase "the other" should be claimed as "the other of said spaces" to make clear what the other is in reference to. In claim 1, line 12, the phrase "liquid fuel" should be claimed as "said liquid fuel" if the previously claimed liquid fuel is intended. In claim 1, line 14, the phrase "combustion air" should be claimed as "said air intended for combustion" if the previously recited combustion air is intended.

In claim 2, use of the word "polymerizable" makes the claim indefinite as to whether or not it must in fact be polymerized to infringe the claims. In claim 3, what is meant by the phrase "is made directly unitary with" is not clearly understood. In claim 4, lines 3-4, the phrase "the two assemblies" lacks an antecedent. In claim 4, lines 3-5, what structure is intended by the phrase "the two assemblies formed by said cruising propulsion unit and by said combustion chamber" is not understood. In claim 4, what is meant by the phrase "is made unitary with said rigid tubular element" is not clearly understood.

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- (u) 8. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

- (c) 9. Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Nissan Jidosha K.K. in view of Hydran Products Limited.

Nissan Jidosha K.K. discloses a ramjet engine comprising:

- | | | |
|----|--|--------|
| 1. | a cruising propulsion unit
with feeding fuel, | 5 |
| 2. | a combustion chamber, | 4 |
| 3. | a gas-ejection nozzle, | fig. 1 |
| 4. | an air duct, | 7 |
| 5. | a transverse portion, and | 2, 9 |
| 6. | passages. | 2, 9 |

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Nissan Jidosha K.K. applies as cited above. However, undisclosed is a cruising propulsion unit with a liquid feeding fuel. Hydran Products Limited teaches a cruising propulsion unit a liquid feeding fuel. Hydran Products Limited teaches a cruising propulsion unit with a liquid feeding fuel, 3. Applicant is merely substituting propulsion fuel of one type for another either of which is commonly known in this art. To employ the teachings of Hydran Products Limited on the ramjet engine of Nissan Jidosha K.K. and have a ramjet engine with a different type of propulsion fuel would have been obvious to a person of ordinary skill in this art at the time of invention.

- (C) 10. Claim 2 is rejected under 35 U.S.C. 103 as being unpatentable over Nissan Jidosha K.K. in view of Hydran Products Limited as applied to claim 1 above, and further in view of Kishi et al..

Nissan Jidosha K.K. and Hydran Products Limited apply as previously cited. However, undisclosed is rocket motor casing made of polymeric fiber resin. Kishi et al. teaches a rocket motor casing made of a polymeric fiber resin, col. 2, lines 58-66. Applicant is merely putting a type of material to use in a way that it is already commonly known to be used. To employ the teachings of Kishi et al. on the ram-jet engine of Nissan Jidosha K.K. in view of Hydran Products Limited and have a ram-jet engine with an outer casing made of a polymeric fiber resin would have been obvious to a person of ordinary skill in this art at the time of invention.

- (u) 11. Claims 3-4 are too indefinite as to their intended meaning to make a determination as to the presence of allowable subject matter.
- (u) 12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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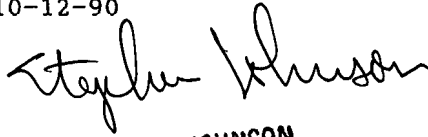
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Engle et al., Smith, Engl, Jacobsen et al., Wiggins, Thomas,
and Gallo et al. disclose other state of the art ram-jet engines.

- (u) 13. An inquiry concerning this communication should be directed to
Stephen Johnson at telephone number 703-308-0513.

Johnson/ajh/10-12-90


STEPHEN JOHNSON

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